CLAIMS

1. A heat exchanger comprising:

a fin set (**59**) including a plurality of fins (**57**) arranged parallel to each other with an interval therebetween;

a framework (**61**) arranged to surround end faces of the fin set (**59**) in the arrangement direction of the fins and end faces of the fin set (**59**) in the lengthwise direction of the fins; and

a serpentine heat transfer tube (**63**) having straight parts (**63a**) penetrating the fin set (**59**) in the arrangement direction of the fins and U-shaped parts (**63b**) protruding out of the framework (**61**), wherein

adsorbents capable of adsorbing moisture from the air and desorbing the moisture into the air is supported on the surfaces of the fin set (**59**), the framework (**61**) and the heat transfer tube (**63**), respectively.

2. The heat exchanger of Claim 1 further comprising

a connector tube (**65**) for connecting the heat transfer tube (**63**) with a refrigerant pipe, wherein

an adsorbent capable of adsorbing moisture from the air and desorbing the moisture into the air is supported on the surface of the connector tube (**65**).

3. The heat exchanger of Claim 1, wherein

the adsorbents are of the same kind.

4. The heat exchanger of Claim 1, wherein

the thickness of the adsorbent layer supported on the surfaces of the fins (**57**) is not less than 50 μm and not more than 500 μm.

5. The heat exchanger of any one of Claims 1 to 4, wherein a fin pitch is not less than 1.2 mm and not more than 3.5 mm.

6. The heat exchanger of any one of Claims 1 to 4, wherein air velocity is not less than 0.5 m/s and not more than 1.5 m/s.